

cyst wall in both species is thick and clearly defined, the contents becoming contracted and clearly separated from it on the addition of glycerine or salt solution. The two species seem to be quite distinct, the reddish color and peculiar grouping of the cyst contents of *M. simplex* as well as its solitary habit being apparently constant characters.—ROLAND THAXTER, *Cambridge, Mass.*

EDITORIAL.

THE TIME is ripe for the establishment of a School of Botany in connection with some one of our large universities. In most of them, this great biological science is represented by a single man with or without assistance, and most of these men are considered fortunate that they are not compelled to teach zoology also. But in this respect there has recently been rapid improvement, and botany to-day stands fairly well differentiated. But we are now advocating further advance. The field of botany has become so vast that one man cannot stand for it all, and of necessity does injustice to the science and to his pupils. If a teacher is worth anything he is cultivating some one phase of the subject, and is impressing his pupils with the importance of that phase. The consequence is that our smaller colleges are being filled with botanists who know only one kind of botany, which is perfectly right and proper, and think every other kind of little or no consequence, which is by no means right and proper. These teachers lack a true perspective of their subject, and propagate the little dogmas of their training schools as persistently as do the religious sects their creeds.

IT IS THIS BROAD VIEW that was lost when botanists were compelled to specialize; and this view is to be restored by the establishment of schools of botany, in which, as in the Pantheon, all views are represented. It must not be supposed for a moment that we are advocating a diffusion of botanical training for the individual; but a student being trained in one department of botany can be made to appreciate the proper importance of other departments that are being cultivated about him. In addition to this a certain amount of elementary training in all the great departments is necessary, and this can be best directed by those who stand for these departments. It is urged that any good botanist can give a sufficient elementary training in the whole subject. We consider this to be a fallacy. It may be true for a year or two after the teacher has passed from under the guidance of

distinguished specialists, but how can he be expected to keep step with the rapid advance in every department? It is our opinion that more antiquated anatomy and physiology, to say nothing of taxonomy (which of course includes the facts of morphology), are being taught in this country by well known botanists than we would care to acknowledge. Anatomists (still called histologists in some quarters) are apt to give little or no conception of modern physiology, and none whatever of our fluctuating taxonomy. Taxonomists (both in specific and genetic lines) are likely to be fair anatomists, but simply retailers of an obsolete physiology. As for physiologists, we may be said, as yet, to have none. We have some fair "readers" of the subject, and others who are mechanically expert enough to devise pieces of apparatus, but as a distinct department in this country, physiology is yet to be established.

A SCHOOL OF BOTANY would prevent this lop-sided presentation of the subject, and would develop a race of botanists with broader views. Such a center of investigation and instruction will doubtless soon be established, as educational matters are moving just now with remarkable rapidity.

CURRENT LITERATURE.

Handbook of British Fungi.

Few systematic works, especially of those relating to cryptogams, have enjoyed such a long period of uninterrupted usefulness as Cooke's "Handbook of British Fungi," published in 1871, in two volumes. Although long since out of print, the demand for it has not abated, as the high price in the second-hand catalogues fully shows. Its popularity was not due to its ever having been a satisfactory work, but to the fact that it was the only work covering the ground. The number of species included in it was 2,810, while the number now recorded for the same territory is about 4,900. There have also been great advances in the classification of the fungi in the last two decades.

In view of these facts the announcement of a new handbook like the old one, but "with all the modern improvements," gives much satisfaction. The new work is to be in three volumes, the first one being already before us. It is prepared by Mr. George Masee,¹ and in size and general appearance resembles Cooke's work.

¹MASSEE, GEORGE. — British fungus-flora: a classified text-book of mycology. 3 vols. 8vo. Vol. I. pp. xii. 422. Illustrated.